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ABSTRACT

The types and functions of the agencies needing occupational information for use in career counseling vary greatly. For example, career and guidance counseling is often supplied by a wide variety of individuals, including general education teachers, rehabilitation counselors, employment service counselors, Comprehensive Employment and Training Act (CETA) counselors, vocational education teachers, and school counselors. Among the forms that such counseling is likely to take are the following: testing, group counseling, individual counseling, and group guidance. To be of maximum use to the widest possible audience, an occupational information system designed to aid career guidance and counseling efforts must contain information pertaining to occupational demand and supply, occupational characteristics, complementary information, and supply and demand analysis. While various career and labor market information is available from governmental or commercial sources, much of this information is prepared primarily for distributional purposes and, as such, does not meet the needs of school-based career education and guidance programs. To fill the need for information capable of giving students a broad understanding of occupational structure and points of access to the labor market, states should provide inservice training to familiarize teachers and counselors with the occupational system and should expand delivery of the system to diverse subpopulations. (MN)

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ROLE OF OCCUPATIONAL INFORMATION SYSTEM IN CAREER GUIDANCE AND COUNSELING

by

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Prepared for

North Carolina State Occupational Information Coordinating Committee

and

National Occupational Information Coordinating Committee

Research Triangle Institute
North Carolina

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ABOUT NOICC

The National Occupational Information Coordinating Committee (NOICC) and its counterpart State Occupational Information Coordinating Committees (SOICCs) were created by the Education Amendments of 1976 (Public Law 94-482) with a mandate to:

- Development and implement a national, State and local occupational information system to meet the common occupational information needs of vocational education and employment and training program adminstrators and planners, and

- Improve coordination between, and communication among, such administrators and planners, as well as employment security agency administrators, research personnel and others.

The Comprehensive Employment and Training Act (CETA) Amendments of 1978 (Public Law 95-524) call for NOICC to:

- give special attention to the labor market information needs of youth.

The following officials are named in the 1976 law as members of NOICC:

- Commissioner of Education[1],

- Administrator of the National Center for Education Statistics,

- Assistant Secretary for Employment and Training, and

- Commissioner of Labor Statistics.

The members of each SOICC, also specified in the law, are representatives of:

- the State Board administering vocational education,

- the State employment security agency,

- the State employment and training council, and

- the State agency administering the vocational rehabilitation program.

1/ The function of the U.S. Office of Education was moved to the U.S. Department of Education subsequent to the 1976 law.

ACKNOWLEDGEMENTS

This report is one of several products of the National Occupational Information Coordinating Committee (NOICC) produced under a grant for "Assistance in Occupational Information System Development and Implementation." This grant was awarded in 1979 to a consortium of the State occupational information coordinating committees (SOICCs) of North Carolina, South Carolina and Colorado.

The grant called for the accomplishment of four major tasks:

Task 1. Preparation of a national overview of the need for occupational information through a review of the literature, a summary of State needs assessment studies, interviews with Federal agency staff, and preparation of concept papers by recognized experts in the fields of vocational education, career counselling, CETA program planning, employment service operations and vocational rehabilitation. Reports from Task 1, including this report, are listed on p. iii.

Task 2. Development of an Occupational Information System (OIS) Handbook. This task has resulted in a three volume Handbook:

Volume 1. Occupational Information Development

Volume 2. Occupational Information Analysis, Presentation and Delivery

Volume 3. Technical Addendum

An OIS Handbook Executive Summary has been prepared as well.

Task 3. Development of training materials to accompany the OIS Handbook. The training materials include over 100 pieces of art work suitable for making overhead slides and a trainer's guide designed for use by Federal and State personnel to introduce audiences to the NOICC/SOICC network and the occupational information system.

Task 4. A training conference to introduce the CIS Handbook. Such a conference for States and territories in Federal regions 1-5 was held January 6-9, 1981, in Raleigh, North Carolina, and for those in Regions 6-10, January 27-30, 1981, in San Antonio, Texas. Participants in the conferences included representatives of the Federal and State agencies which are members of NOICC and SOICCs, and staff of the SOICCs.

Task 1 was carried out by Research Triangle Institute, Research Triangle Park, North Carolina. Dr. John E.S. Lawrence and Dr. Alvin M. Cruze served as project managers and authored some of the reports. Tasks 2 and 3 were performed by Program Resources, Incorporated, of Rockville, Maryland. David S. Lipstein, PRI Vice President, served as project director; Harvey Ollis was principal investigator. Task 4 was carried out jointly by RTI and PRI.

Joyce F. Kinnison, Director of the North Carolina SOICC, and Geroge E. Probst, Director of Research for the North Carolina SOICC, served as overall managers of the grant. Carol Kososki, Director of the South Carolina SOICC, and Warren W. Wolff, Director of the Colorado SOICC, provided valuable input and served as reviewers for the project.

Dixie Sommers of the NOICC staff was responsible for monitoring and overseeing the grant, under the supervision of Richard E. Dempsey. Russell B. Flanders, Executive Director of NOICC, provided general direction.

This report, one of the products of Task 1, discusses the use of occupational information in vocational guidance and counselling. It was prepared by Edwin L. Herr, University of Pennsylvania; Dr. Herr is a former president of the American Personnel and Guidance Association. The opinions expressed are those of the author and do not necessarily represent policy of NOICC or its member agencies.

Reports on the Need for Occupational Information

Concepts Papers

Occupational Information System and the Employment Security System: A Need and Resources Assessment, Charles E. O'Dell, 1980.

Occupational Information and Vocational Education: A Concept Paper, Donald W. Drewes and Gary R. Bice, 1980.

The Role of an Occupational Informatin System in Career Guidance and Counselling, Edwin L. Herr, 1980.

Occupational Information Needs for CETA Prime Sponsor Policy Making, Planning, and Program Operations, Andrew M. Sum and Paul E. Harrington, 1980.

Occupational Information System and Vocational Rehabilitation: A Concept Paper, Joseph B. Moriarty, 1981.

Literature Review

Data needs and uses of the Context of an Occupational Information System: A Review of the Literature, Nancy Paulson, 1980.

State Needs Assessment

Occupational Information Needs at the State Level: An Empirical Study of Data Needs Assessment Surveys, John E.S Lawrence and John Gross, 1980.

Federal Interviews

Occupational Information Needs at the Federal Level, John E.S. Lawrence and Alvin M. Cruze, 1981.

Final Report

Occupational Information Needs in Selected Public Agencies at the State and National Levels, John E.S. Lawrence, 1981.

Copies of Reports are available from NOICC
2100 M Street, N.W., Suite 714, Washington, D.C. 20037

Chapter 1. INTRODUCTION

I. Background

Through various legislative provisions--primarily in PL 94-482, Title II, PL 95-93, Section 348, PL 95-207, Section 12(a) and PL 95-524, Section 315 (a) (3)--Congress has expressed its support of the creation and implementaton of a comprehensive and standardized Occupational Information System (OIS). Depending upon the particular legislative reference used, the OIS is a recognition that the diverse choices facing youth and adults require sound and accurate information bases by which alternative personal actions can be explored, planned, and evaluated. However, the OIS concept also reflects the need for an information base to which the planning and management of training and other educational services can be related. In sum, an Occupational Information System, as conceived in the various Federal paradigms available, has the potential to provide data by which both institutional and individual decisionmaking can be effectively informed of trends and actualities describing the training and personnel requirements of the occupational structure both now and in the future.

In broad terms, occupational information is central to the planning for or the direct delivery of services by constituencies at local, state, and national levels which have as their major missions education, rehabilitation, or employment. These constituencies are interactive across governmental systems but can be classified primarily into five major areas: Career Guidance and Counseling, Comprehensive Employment and Training, Employment Security, Vocational Education, and Vocational Rehabilitation.

II. Purpose of the Paper

This paper has multiple purposes:

1. To examine the goals, characteristics, functions and forms of career guidance and counseling in the schools.
2. To examine the role of occupational information in career guidance and counseling with particular reference to the facilitation of student career planning and occupational choice.

3. To examine the specific requirements for and the availability of occupational information.
4. To identify recommendations pertinent to OIS support of career guidance and counseling.

III. Overview of Contents of the Paper

Chapter II of this concept paper is directed at examining the diversity of provisions of career guidance and counseling in schools, the relationship of career guidance and counseling to student guidance and counseling more broadly conceived, and the relationship of career guidance and counseling goals to the goals of schooling. Specific reference is made to funding sources for career guidance and counseling, career guidance and counseling functions, and the characteristics and competencies of persons who perform career guidance and counseling.

Chapter III examines the requirements for occupational information in providing career guidance and counseling services to students. The chapter begins with an overview of the available research bearing upon the needs by students for occupational information. The chapter then describes the requirements for occupational information in each of the categories intended to be part of the OIS: occupational demand, occupational supply, occupational characteristics, complementary information, and supply/demand analysis.

Chapter IV examines the availability of occupational information required in career guidance and counseling. The chapter begins with a broad perspective on the meanings of availability as defined by the actual presence of required information, obtaining access to it, and the status of shared information among school counselors, employment service counselors and others. The chapter concludes with an analysis of the current availability of information in the five categories intended to comprise the OIS.

Chapter V summarizes key recommendations, both general and specific in nature, which relate to the strengthening of OIS support for career guidance and counseling. These recommendations deal with the potential leadership role of the OIS in bridging labor and education concerns as well as for providing specific types of information needed in career guidance and counseling.

Chapter 2. GENERAL DESCRIPTION OF CAREER GUIDANCE AND COUNSELING PLANNING, ADMINISTRATION OR CLIENT SERVICE PROCESS

I. Functions of the Agency for which Occupational Information is Needed.

Career guidance and counseling can be and often are provided by many agencies. For example, the U.S. Employment Service and the CETA Counseling Provisions directed to unemployed and underemployed disadvantaged youth are both vital community-based mechanisms of career guidance and counseling. However, the agency with, at least potentially, the most comprehensive provision of career guidance and counseling, over the most sustained period of time, with all segments of the child and youth population, is the school. In such cases, career guidance and counseling is typically a subset of the responsibilities called student guidance or guidance and counseling rather than an independent set of functions. Although career guidance and counseling in the school also acts in conjunction with guidance and counseling provisions available in various community organizations, the primary emphasis of this chapter will be on those services provided by schools. The purposes and techniques related to the Employment Service or to CETA will be examined separately in other concept papers in this series.

It is difficult to talk about a typical school-based career guidance and counseling effort. Under the Federal constitution each state has the authority to decide its educational policy and under state statutes the Board of Education within each local community has additional authority to apply the particular state's educational policy to its own resource and student characteristics. Therefore career guidance and counseling objectives and their implementation vary somewhat from school to school as well as within educational levels (e.g., primary-intermediate elementary school, middle-junior high school, senior high school).

Within such diversity objectives typically associated with career guidance and counseling are the following:

To help each student

1. make decisions about high school, postsecondary programs of study, jobs or occupations on bases other than misinformation, personal whim or the choices of friends.

2. understand relationships between personal achievements, values, preferences, educational aspirations and career preferences.

3. analyze current personal competency in skills necessary to career preference and develop plans to strengthen these skills or acquire others in accordance with career requirements.

4. find ways that school experiences can be chosen to enhance personal learning and prepare a base of skills pertinent to future goals.

5. assume responsibility for career planning and its consequences.

6. make choices from the widest possible range of alternatives available.

7. systematically reality test career preferences by relating them to achievement in courses, part-time work, or extracurricular activities.

8. prepare to qualify for entry-level jobs by taking appropriate courses, by cooperative education, by part-time work, or by on-the-job training.

9. identify alternative ways of accomplishing desired educational or occupational goals if preferred choices are not available.

10. develop knowledge and skills pertinent to life as a consumer.

11. develop knowledge and skills pertinent to effective use of leisure time.

12. make accurate estimates of personal traits and achievements and present these effectively on a resumé and in an occupational or educational preview.

13. develop specific plans to implement career goals

(Herr & Cramer, 1979, p. 191).

The objectives of career guidance and counseling are shaped by several factors. For example, most educational philosophies or goals reflected in national, state, or local documents emphasize the importance of students being prepared to plan, to choose realistically, and to be effective workers. Career guidance and counseling objectives are consistent with such values

and provide mechanisms to translate such philosophical assertions into planned action.

In addition to the philosophical, specific legislative provisions have been directed to the provision of career guidance and counseling in schools. In particular, PL 95-207, the Career Education Incentive Act, and Title II, the Vocational Education segment of PL 94-482, the Educational Amendments of 1976, represent such foci. In neither case, however, do the funds, and therefore the effects, of such legislation touch all secondary schools, or schools at other educational levels, equally. Therefore, in addition to the diversity of career guidance and counseling efforts occasioned by geography (urban-rural, etc.) and by student characteristics, diversity in the provision of career guidance and counseling also occurs because of different fiscal and personnel resources resulting from tax bases, school aid formulae, and the degree of participation in federally funded programs.

Guidance and Counseling Functions: A Broad View

Obviously, schools as primary agencies for the delivery of career guidance and counseling are required to perform many other functions as well. The teaching of basic academic skills and the provision of other formal learning experiences are the school's primary concern. These are supplemented by concerns for the physical and mental health of children and youth, the development of interpersonal relationships and cooperation, adaptability to different persons and conditions, the learning of study skills, the taking of personal responsibility for learning.

Within the broad goals of schooling is the general concern for student guidance. Guidance as a concept and as a set of functions has many definitions. An enduring one is that proffered by Jones and Hand in 1938:

> Guidance is that inseparable aspect of the educational process that is peculiarly concerned with helping individuals discover their needs, assess their potentialities, develop their life purposes, formulate plans of action in the service of these purposes, and proceed to their realization (p. 2).

More recently, Shertzer and Stone (1976) describe guidance as "the process of helping individuals to understand themselves and their world" (p. 38). Aubrey (1978) has suggested that however the term guidance is used, there is an underlying connotation of a school-wide system of efforts

"designed to affect the personal development and psychological competencies of students" (p. 113).

Although guidance and counseling have usually been considered together to describe the system of efforts designed to meet the needs of students described above, the term guidance is typically seen as the broader and more philosophical of the two terms with counseling being seen as the primary technique or method used to implement much of what takes place under the rubric of guidance (Herr, 1979).

As the practice of guidance and counseling has evolved in the schools, these terms have undergone some metamorphosis in the primacy of different methods and processes used. One major conception used to describe the major function of both the elementary and secondary school counselor is that of the 3 C's: counseling, coordination, and consultation. Such a view holds that the counseling (the first C) is the primary technique which counselors are prepared to use and with which they most identify. The basic premise of counseling is that, in the security of a close relationship with the counselor, students will be able to explore their feelings, values, perceptions of others, and interpersonal relationships. From this exploration comes insight, self-awareness, role clarification, planning, and changes in behavior. The desired outcomes of counseling are self-understanding and self-direction.

The second C, coordination, acknowledges that frequently separate specialists and family members each attempt to affect a student's learning, self-exploration or other process. To avoid conflict and contradiction in these efforts, the counselor's coordination can bring a meaningful pattern to the efforts of these individuals. Such coordination might also extend to referral of children to community agencies, to the school's testing program, to the provision of personal-social, educational and occupational information, and perhaps to such areas as peer counseling and other facilitative activities.

The third C, consultation, represents the counselor's effort to work with others--teachers, parents, employers--to create effective learning climates, better teacher-student relationships, positive parenting styles, greater understanding of student needs for information and work experiences. In such a role the counselor might serve as a resource person, consultant to or collaborator with other persons to effect the desired outcomes.

In practice, the 3C conception of guidance and counseling is a bit too simplistic. As Peters (1978) has recently suggested, a more realistic description of the work of school counselors, particularly in the secondary school, would include eight general areas of activity. They are:

1. Counseling and group guidance,
2. Registration, curriculum, and special course placement,
3. Testing,
4. Records,
5. Conferences and consultations,
6. Coordination, liaison, and public relations,
7. Professional growth, program development, research and innovation, and
8. Evaluation and accountability systems.

Each of these areas might be related to career-related content but in many schools that is not the case. School counselors have a large range of concerns. They typically help new and transfer students plan their courses of study. They must provide counseling for students who have serious, urgent, or chronic emotional problems. They conduct exit interviews for early school leavers. As a function of PL 94-142, The Education for All Handicapped Children Act, they may participate in the development of IEP's, individual educational plans, for such children. They may work with the local courts or welfare agencies on problems of substance abuse, family discord, or child neglect. They are likely to work with all students in defining postsecondary school educational plans and in assisting college-bound students with making arrangements to take admission tests and to complete financial aid applications. They are likely to maintain the school's permanent records on all students and to assist the administration in developing the master schedule of class assignments. They are likely to be involved in parent conferences, with or without teacher involvement, in relation to a wide array of student academic, disciplinary and career-related problems.

The fundamental point at issue here is that in most schools career guidance and counseling is likely to be a subset of guidance and counseling functions-not the whole. In most schools, there is not a separate career guidance and counseling specialist but rather generalist school counselors who have a large number of responsibilities including career guidance and counseling.

Career Guidance and Counseling Functions.

The functions now considered to be a part of career guidance and counseling are broader than those historically seen to be a part of vocational guidance. While still incorporating the traditional processes of individual and group counseling, testing, and informational retrieval, career guidance and counseling has extended the view of these functions.

Since the beginning of the twentieth century, vocational guidance has been principally concerned with immediate job choice and with differences in work activity across occupations as related to individual characteristics. This is the traditional implementation of a trait and factor approach to matching person and job and the one reflected in the definition of vocational guidance adopted by the National Vocational Guidance Association in 1937 as "the process of assisting the individual to choose an occupation, prepare for it, enter upon it, and progress in it." This definition was revised in 1951. To wit, "vocational guidance is the process of helping a person to develop and accept an integrated and adequate picture of himself and of his role in the world of work, to test this concept against reality, and to convert it into a reality, with satisfaction to himself and to society" (Super, 1951, p. 88).

The 1951 definition of vocational guidance did not emphasize the provision of occupational information at a particular point in time nor a simple matching of person and job. Rather it emphasized the psychological nature of vocational choice. Indeed, the 1951 definition effectively blended into a unified whole the personal and vocational dimensions of guidance which previously had been arbitrarily separated. The resulting base for conceptions of vocational guidance moved the locus of fundamental concern from the occupation to be chosen to the self-concept. And, it focused primarily on self-understanding and self-acceptance as the evaluative bases to which the occupational and educational alternatives available to the individual can be related.

Extending from the point of the 1951 redefinition of vocational guidance has been a subtle but important shifting from occupational to career models in the vocational guidance literature. Indeed, by the late 1960's and early 1970's, the terms career guidance and career counseling were appearing in the professional literature almost as frequently as the term vocational

guidance. Such shifts in terminology were not just semantic but were producing shifting implications for counselor role and for career guidance and counseling.

At issue in this evolution of career guidance and counseling is the term, career. By definition career embraces a longer time line than occupational choice and it tends to include more elements. The concept of career includes prevocational activity such as the effects of educational program and options upon student occupational planning, choice, and adjustment as well as the postvocational activity manifested by the retiree or the pensioner working part-time. Prime consideration in career models are not only the differences among occupations but rather the continuity or discontinuity in the career development of persons, the interactions of educational and occupational choices across time, the potential significance of immediate choices for intermediate and future goals, the potential or actual interaction among the sequence of occupations, jobs, and positions held.

McDaniel (1978) has recently contended that career means more than one's job or occupation. It is a life-style concept which also involves a sequence of work or leisure activities in which one engages throughout a lifetime. In this context, Super (1976) argued a few years earlier that "careers exist only as people pursue them; they are person centered." Unlike occupations which exist as classifications of work activity, careers uniquely reflect the types of decisions each individual makes.

Career models introduce several aspects into the earlier conception of vocational guidance which are not apparent in the occupational model. One of these is the idea of developmental career guidance and counseling. In such a emphasis the counselor is not concerned alone with immediate choice of training or job but rather is concerned with the client's intermediate and long-range goals and how immediate choices relate to such goals. Therefore, personal values, the clarity of the self-concept, personal planning ability, exploratory behavior vis-á-vis choice options become important variables to be considered in career guidance and counseling. In addition, personal behaviors, attitudes, and skills of different kinds are seen as appropriately developed by counselors if they are not already present in the student's behavioral repertoire.

In sum, newer emphases within career guidance and counseling reinforce the importance of systematically educating students to the knowledge, attitudes, and skills which will be required of them at future choice points, in planning their educational program, in selecting and preparing for work. This is not to suggest that career guidance and counseling does not also attend to the problems of students who must make immediate choices of jobs, either part-time or full-time, because they are early school leavers, experiencing economic difficulties, or because they do not now contemplate post-secondary education. Career guidance and counseling includes responses to problems of immediate job choice and to more global career planning but is confined to neither emphasis exclusively. Therefore, the needs for occupational information in career guidance and counseling are complex. They are not confined to either local job data or to substate, state or national trends. Both are required, as are a language and delivery system which permits these forms of information to be used by students in the elementary, middle school/junior high school, and senior high school.

Flowing from these emerging views of career guidance and counseling are statements of function which go beyond the traditional techniques: testing, individual and group counseling, information retrieval and analysis. Most of these functional statements recognize that career guidance and counseling involves more than that a school counselor can do alone and that others--parents, teachers, administrators, community representatives--must also be considered a part of a career guidance and counseling program. They also tend to embed the career guidance and counseling effort into the school as a systematic, longitudinal effort, rather than a set of random events.

Three statements of competencies will be reported here to illustrate the diversity as well as the overlap of functions which are customarily assigned to career guidance and counseling. The first focuses on the counselor's role in career education; the second focuses on the counselor's role in facilitating career development; the third focuses on the delivery of career guidance. In fact, they each speak of related conceptions of career guidance and counseling.

American Personnel and Guidance Association Statement of Competencies

In December 1974, the Board of Directors of the American Personnel and Guidance Association (APGA) adopted a statement describing the role and

functions of counseling and personnel practitioners in career education. In order to conduct career education in any setting, counselors should provide leadership in:

1. identifying individual career development tasks and implementing programs to accomplish them;

2. identifying and classifying educational and occupational information;

3. assimilating and applying career decisionmaking methods and materials;

4. eliminating the restrictions that racism and sexism place on opportunity;

5. expanding the variety and appropriateness of assessment devices and procedures necessary for sound personal, educational, and occupational decisionmaking; and

6. emphasizing the importance of career counseling and of achieving its goal.

These six functions are considered to be inseparable leadership duties for counselors in career education. The APGA statement also considers it essential for counselors to actively participate in the career education process in seven ways:

1. By serving as liaison between educational and community resource groups,

2. By conducting assessment surveys of career guidance needs among students,

3. By organizing and operating part-time and full-time educational, occupational, and placement programs,

4. By conducting job adjustment activities,

5. By contributing to revisions of the curriculum,

6. By helping involve the family in career education, and

7. By participating in efforts to monitor and assess activities and communicating the results of those activities to other practitioners and clientele.

American Vocational Association-National Vocational Guidance Association Statement of Competencies

In 1972 an American Vocational Association and National Vocational Guidance Association Joint Commission on Career Guidance and Vocational Education developed a position paper in career development. Included was a list of responsibilities that fall to counselors who assume leadership roles in career guidelines:

1. To provide staff with insights into human growth and development and to teach staff to assist students in obtaining a competence-based learning experience,

2. To coordinate the acquisition and use of occupational, educational, and labor market information as well as the development and use of a comprehensive cumulative pupil data system,

3. To help teachers plan for secretarial learning experiences in career development,

4. To help the client to realize that each person is unique and that realistic planning requires accurate self-appraisal; to enable clients to use assessment tools and techniques in examining their personal characteristics,

5. To help clients identify significant role models,

6. To coordinate the identification and use of school and community resources for facilitating career guidance programs,

7. To provide individual and group counseling,

8. To coordinate the evaluation of students' learning experiences and use the resulting data to modify the curriculum in conferences with individuals, instructional staff, and parents,

9. To assist in providing youth the skills necessary for entry into the work world, and

10. To coordinate a job placement program for the school and provide for job adjustment counseling.

Association for Counselor Education and Supervision Statement of Competencies

In order to assume and maintain leadership positions in the delivery of career guidance services to all individuals, ACES believes that counselors must have a set of at least 12 common competencies which should be acquired during pre and/or inservice training. Counselors, regardless of their employment setting, should have knowledge and competencies in the following:

1. Career and human development theory and research, and the skills necessary to translate this knowledge into career guidance and career education programs.

2. Career information resources, and the necessary skills to assist teachers, community agency personnel, para-professionals, and peers to integrate this type of information into the teaching-counseling process.

3. Career assessment strategies, and the skills necessary to assist individuals to utilize this data in the decisionmaking process.

4. Both individual and group career counseling practices.

5. Career decisionmaking processes, and the skills necessary to implement programs designed to facilitate career decisionmaking for clientele in educational and community agency settings.

6. Job placement services, and the skills necessary to assist their clientele to seek, acquire, and maintain employment.

7. The unique career development needs of special clientele groups (women, minorities, handicapped, disadvantaged, adults, etc.), and the skills necessary to assist them in their development.

8. The role that life-style and leisure play in career development, and the skills necessary to assist their clientele to select and prepare for occupations which coincide with various preferences.

9. Consultation skills necessary to assist others (teachers, parents, peers, etc.) to deliver indirect career guidance services.

10. Program development and curricular infusion skills necessary to design and implement career awareness, self-development, career exploration, and job placement programs within educational and community agency settings.

11. Institutional change strategies, and the necessary skills to facilitate such change while implementing career guidance programs in educational and community agency settings.

12. Educational trends and state and Federal legislation which may influence the development and implementation of career guidance services.

II. Who Performs These Functions

The functions identified in the previous section are primarily performed by the school counselor (in some states this person is known as the guidance counselor). Generally, this person's job assignments are not confined to career guidance and counseling but include other forms of counseling, respond-

ing to a broad range of student problems, outreach activity, and quasi-administrative tasks such as recordkeeping and test administration.

Some schools have designated specialists in vocational counseling or career guidance and counseling. Data about how many such people actually exist are not available, but such specialist assignments tend to be far fewer than the more generalist role which most school counselors tend to perform. Typically, where such specialists exist, they are persons trained as school counselors who have particular skills, experiences or interests in career guidance and counseling and have been assigned to a primay emphasis in such a role. Where this organizational pattern occurs, the career guidance and counseling specialist may be assigned to manage or coordinate the Career Resource Center or the occupational and educational information system. Sometimes such persons are assigned to coordinate the job placement function of the guidance department or to work with the students engaged in the vocational education program or who have declared their intent to go directly from the secondary school to work without attending college or other forms of postsecondary education. Ordinarily such specialist assignments are less likely among middle/junior high school or elementary school counselors.

In addition to professionally-trained school counselors performing the functions described, there are also schools in which paraprofessionals are employed to work under the supervision of the school counselor. Frequently such persons are trained to engage in specific tasks: maintain the occupational and educational materials; administer standardized tests and inventories; assist students in using a computer terminal, audio visual materials, or other forms of technology.

In some instances, teachers are engaged in conducting particular career guidance and counseling functions; usually as part of a career education program and typically working in concert with the counselor as a collaborator or consultant. Outside of this context, however, vocational educators frequently run job placement services and engage in related activity. In other instances, specialists from community agencies assist the school counselors or particular teachers by performing particular functions--e.g., testing or counseling--with certain groups of students. Such community persons might include CETA counselors for economically disadvantaged, CETA

eligible students; Employment Service counselors for hard to place seniors; Personnel Directors to assist elementary and middle school students with information pertinent to broad career awareness; workers in particular industries to serve as resource persons or as collaborators for students engaged in field trips to work sites or having career internships.

The notion of who performs career guidance and counseling functions can also be considered in the more restricted sense of who provides students with occupational or career information, who do they work with, and what do they emphasize. Some examples follow.

General Education Teachers are likely to provide some occupational information if they are employed in a school which is involved in career education. Research data would show that not every school is so engaged, and where career education is in place it is more likely to involve elementary school teachers then secondary school teachers (Herr, 1977). Much of the occupational information used by general education teachers is likely to be in the form of examples which relate the content of a particular subject matter to occupations in which that subject matter is important to the work activity or problem solving which takes place.

Rehabilitation Counselors are likely to be involved with students aged 14 and above whose physical, emotional, mental or educational disabilities and their likely impact on future vocational adjustment make them eligible for legislatively defined services. Such students are likely to receive training and labor market information specific to their disability through this source.

Employment Service Counselors are likely to deal primarily with the hard to place school leaver or the economically disadvantaged student seeking entrance to federally subsidized manpower training programs. The information made available through this process is typically focused on locally based job data or training.

CETA Counselors can, by legislative definition, work with in-school, economically disadvantaged youth and nonschool youth (dropouts and others) who are CETA eligible because of sustained unemployment and economic disadvantage. Many of these persons are likely to be screened and/or referred to CETA by Employment Service Counselors. Such youth are likely to receive some occupational information through career orientation and work experience programs.

Vocational Education Teachers are likely to provide information and work socialization relative to the specific occupation for which students are gaining entry level skills. Vocational education teachers are also likely to use occupational information to develop curricula in response to local labor market needs.

School Counselors provide occupational information to some proportion of the student population. Such information is likely to be broader in scope and content than that provided by any of the other sources cited, with the possible exception of general education teachers. The proportion of the student population which receives occupational information likely varies widely from school to school. However, available research data suggest that, in the main, it is less than students, teachers, or parents desire (Kauffman, 1967; Campbell, 1968; Ginzberg, 1971; Predeger, Roth, & Noeth, 1973; Mitchell, 1978).

III. How Functions Are Performed

The career guidance and counseling functions described above are not necessarily performed in a standardized or routine fashion. The certification of school counselors, and indeed other professionals or paraprofessionals within the school, varies from state to state. Some states emphasize considerable experience and coursework in the content and practice of career guidance and counseling; in other states, one course is seen as sufficient. The content of whatever course work is expected also varies in the degree of emphasis on the identification and use of occupational information, career information delivery systems, counseling techniques, etc.

Although there are some exceptions, most states do not require separate certification for vocational counselors or those who specialize in career guidance and counseling. Ordinarily such persons meet the certification required for school counselors and then they add through their own volition or the stimulus of employing agencies such additional career-related course work as might be available in colleges and universities or in in-service activities accessible to them.

As certification standards for school counselors vary from state to state, so, too, do counselor education programs. Although the almost universal expectation is that school counselor certification will be essentially coordinated with the acquisition of a master's degree, there is very little

standardization of the content of the course work and the experiential components which lead to the master's degree and to certification. Some counselor education programs emphasize considerable attention to career guidance and counseling; others do not. On balance, it would appear that growing attention is being given to training counselors in career development theories, career guidance and counseling techniques, the acquisition and use of occupational information and related material. However, it is also likely that the quality of such instruction and the experiential components of training are very uneven among counselor education programs within any given state and among states. With few exceptions, subject matter teachers are not taught career guidance and counseling principles or techniques during their pre-service training.

Given the above sketch of the existing situation regarding the preparation and certification of school counselors, the question of how career guidance and counseling functions are performed has no standard answer. There are, however, functional probabilities.

Testing--Until recently, most schools routinely administered interest inventories, multi-aptitude batteries, and achievement tests to all students; usually every other year. In some instances, these are supplemented by additional instruments tailored to the specific needs of individual students. The outcomes of the mass testing might be communicated to students in groups or individually. Often the results are sent home to provide parents with information.

The results of such group testing are used in several ways. Typically, they are discussed in relation to course or curriculum selection and in relation to whether one should or should not go to college. They are sometimes used to assist students in determining a major in college. Depending upon the types of tests administered, and the sophistication of the counselor, such information will be used for career planning and goal specification purposes. It is less likely to be used in comprehensive high schools in conjunction with immediate job choice. In such cases, in cooperation with school counselors, the Employment Service may administer the General Aptitude Test Battery (GATB) and relate the results to local job availability. In some states school counselors have been trained to use the GATB for such purposes and may use it to do so. This is quite likely to be true in area

vocational technical schools where additional work sampling assessments like the Singer Graflex system might also be used.

While data bearing precisely upon the matter of test administration and use are not widely available, it would appear that schools are not engaging in routine mass testing for other than achievement assessments as had been true a decade ago. They tend to appear to be more selective about which career-related assessments individual students need and are tailoring testing rather than acquiring information which will be filed but not used.

Individual Counseling. The primary technique with which most school counselors identify and for which they have been trained is individual counseling. Depending upon the ratio of students to counselors (approximately 460 to 1 as a national average) in a given school, individual counseling may be devoted to course slection, urgent emotional problems, disciplinary or academic difficulty, or career planning and choice. The amount of individual counseling devoted to the latter in most schools tends to be less than that devoted to the former categories of student need (see introduction to chapter 3). Often such emphases are reflections of administrator or teacher expectations of what school counselors should emphasize rather then reflections of student needs or desires. In a desirable format, counselors would use individual counseling to help personalize the information students acquire through a career education infusion into academic subject matter or through other forms of group guidance.

Group Counseling. Because student-counselor ratios are high virtually every place in the nation, many school counselors conduct group counseling sessions with selected groups of students. Typically, group counseling is problem centered and focused upon improving the attitudes and skills of certain students. Often groups of underachievers, students with poor social skills, truants, or students with behavioral problems are brought together for group counseling. In some instances, students who are undecided about their goals, or experience a lack of clarity in self-concept are also provided group counseling. The latter emphasis is more likely to be seen within a context of career guidance and counseling than is the former.

Group Guidance. Under the influence of the United States Office of Education's (USOE) efforts in career education for all students, a large number of schools have developed group approaches to career guidance.

Frequently, these take the form of specific career-relevant units of instruction directly embedded in academic subject matter. Where such information, knowledge, and skills are reinforced throughout the curriculum, career education/career guidance is said to be infused. Whether infused or separate units in subject matter, career-related or occupational information is likely to be provided in a systematic attempt to influence specific student attitudes and skills which are career-related: self-awareness, educational literacy, occupational awareness and exploration, relationship of subject matter to occupational work activity or problem-solving, skills in personal economics, effective use of leisure time, job search tactics.

Typically, where career-related material is infused into general academic subject matter it is placed in the form of learning activities packages, integrated with field trips and the use of resource speakers from various occupations or industrial settings. It is likely that school counselors and teachers will collaborate in such situations, possibly jointly teaching the material, or with the school counselor serving as a resource to the teacher in regard to choosing materials, identifying concepts and goals to serve as organizing themes, and other course planning.

Where career education infusion approaches have not made a comprehensive impact on subject matter in a particular school, it is likely that specific courses will incorporate some career-relevant units (e.g., English - résumé writing) and counselors will then do much of the career guidance in groups which stress self-awareness, career planning, decisionmaking, etc.

Information Retrieval. As a supplement to the other career guidance and counseling functions, relevant information must be available, accessible, and pertinent to the needs of particular individuals. Typically, school counselors set up classification and retrieval systems which may use a single system--e.g., DOT codes, USOE clusters--or several systems, or be cross-referenced. The information may be stored in vertical files or in as sophisticated an approach as a computer-assisted interactive system: e.g., CVIS, DISCOVER, GIS, SIGI or other such proprietary systems. Depending upon the geography and the sophistication of a particular school district, direct linkages may exist to the information and technical assistance available from a state-wide CIDS or from some network of Education Information Centers (EIC's). Increasingly, information retrieval and delivery are wedded together

in multiple types of technology: gaming, problem-solving kits, self-directed handbooks, audio-visual resources, work simulations, etc.

To a rapidly growing degree, schools are developing career resource centers where multiple forms of information and delivery technologies are stored. Such centers also serve as the focal point for coordinating full-time or part-time job placement; as the coordinative center for sending students into the community to acquire certain types of information, to shadow workers, to do career interns, to engage in community surveys or other career-related research; and, as the conduit by which career resource people coming into the school are recruited, hosted, and assigned.

Frequently such career resource centers provide storage, technical assistance, and work space devoted to assisting teachers to prepare career-related material for infusion into their course work. School counselors or paraprofessionals also use the career resource center as a place to screen incoming material for sexual or racial bias or other types of inaccuracy before it is placed into the existing retrieval systems.

IV. Schedule for Performance of Functions

In general, the career guidance and counseling functions performed are delivered on demand although in the case of career education activities or other planned programmatic efforts, it is likely that a sequence of experiences will be developed so that students can attain self-awareness, career awareness, and career exploration in a systematic way. Thus, while student needs and questions regarding occupational information or career planning will trigger career guidance and counseling responses, specific programs of career guidance and counseling are likely to be provided which are intended to educate students to the knowledge, attitudes, and skills which will be required of them in the future. In broad terms, such preplanned programs in the elementary school might focus on attitude formation; in the junior high school on career exploration; and, in the senior high school on specificity of planning. But, within each of these educational levels there is great diversity in student career maturity, need for either pre-planned or individualized career guidance and counseling, and ability to profit from various techniques.

To push the point further, using students in the senior high school as illustrative, even though all students may need to deal with specificity of

planning as an overarching theme, responses must also be available to deal with the specific form of postsecondary school reality they are trying to anticipate and prepare for. According to Herr and Cramer, 1979, such postsecondary reality for different secondary school students might be cast in any of the following forms:

1. Choosing a postsecondary vocational or technical school to pursue some skilled specialty.

2. Gaining access to a college and selecting a major field of study with its myriad implications for later occupational endeavors.

3. Converting part-time work experience while in school into a full-time position in the labor market.

4. Entering the labor market for the first time.

5. Deliberating about military service, marriage, combining work and continuing education.

6. Acquiring an apprenticeship opportunity.

> However there will also be a sizable number of students for whom none of these possibilities seems viable or appealing; for them, the future and its reality represent threat or trauma. For some of these students, the future beyond high school represents a confrontation with the ramifications of a general state of indecisiveness regarding life and their place in it. Others will find the burden of decisionmaking untenable and will use various avoidance behaviors to escape or postpone facing such an awareness directly (p. 186).

Similar perspectives could be drawn about the variety of student needs for career guidance and counseling in the elementary and in the middle/junior high schools (e.g., Herr & Cramer, 1979, Chapters 6 and 7). Such an analysis is not necessary here. Suffice it to say that, in sum, the performance of career guidance and counseling functions is:

1. Dependent upon demand from students, and

2. Dependent upon the systematic nature of the pre-planned career guidance and counseling program developed for a particular school and educational level.

One might also address the schedule for performance of functions in another way. For example, does individual counseling precede group guidance, or testing, or information retrieval? The answer is, it depends. Because

of demand, program configuration, etc., the student might interface with any of these functions first and then the other functions would be provided in a manner pertinent to the student needs and program goals.

V. Important Decisions that are Made During Performance of these Functions that Occupational Information can Inform

The client (student) decisions which are made during career guidance and counseling are many faceted. Many have been implied above. Examples of those for which occupational information is important include:

1. What type of postsecondary education or training to pursue?
2. Whether to seek an apprenticeship and how to apply.
3. Whether to enter vocational education and what curriculum to pursue.
4. Whether one could perform or would want to perform the work activity inherent in a particular occupation.
5. How one should prepare for a chosen occupation.
6. Whether one is likely to be able to get access to the preparation required by the preferred occupation.
7. Whether the preferred occupation is available locally or would one have to move to another geographic location to perform it.
8. Whether the requisite education and training is available locally or would have to move to another geographic location to obtain it.
9. Whether a preferred occupation is likely to provide the income and working hours to enable the individual to pursue the life style or leisure preferred.
10. Whether the preferred occupation provides on-the-job training or other educational benefits or must one prepare for the occupation before entering it.
11. Whether jobs are available locally for school drop-outs.
12. Whether economically disadvantaged students can gain access to manpower training programs and be financially supported in the process.
13. Whether sufficient part-time work is available to permit one to support oneself simultaneously in part-time, post-secondary education.

14. Whether one needs to secure some amount of capital, tools, or licenses in order to engage in the preferred occupation.

15. Whether the preferred occupation is elastic enough in skill to permit one easy job transfer or lateral occupational mobility in case of need.

16. Whether the preferred occupation or job immediately available is related to one's intermediate and future goals.

IV. Who Makes These Decisions

Since career guidance and counseling are essentially client services, the basic assumption is that the student makes the decision in some collaborative way. The counselor is a facilitator of the decisionmaking process but not the decider. Occupational information is the base to which individual values can be applied in weighing alternatives available.

Chapter 3. REQUIREMENTS FOR OCCUPATIONAL INFORMATION IN AGENCY PLANNING, ADMINISTRATION OR CLIENT SERVICES

The use of occupational information for agency planning or administration in the schools occurs primarily in vocational education. In such educational emphases, occupational information is useful for purposes of curriculum development, planning of instructional configurations, and designing instructional facilities. Since vocational education is the focus of a separate concept paper, these matters will not be further explored here.

Within career guidance and counseling, occupational information can be useful in planning the types of group guidance/career education content and experiences which students should have. It is also useful in designing information classification and retrieval systems. In general, however, occupational information is most useful in informing client (student) decisionmaking.

The available research on requirements for occupational information is not very specific. It is, however, quite consistent in its findings that student demand or need for occupational information and for career guidance and counseling is greater than that which is available. Some of the available research findings will be summarized below.

In 1966, Robert Campbell and his colleagues undertook a national study of the status of guidance in public secondary schools and compared the viewpoints of school administrators, counselors, teachers and students on guidance issues. Some 353 high schools and 7,000 respondents across the nation were included in the study. Selected findings were as follows:

- In most instances, the counselor was greatly overextended in attempting to fulfill guidance service expectations
- Counselors reported a median ratio of 380 students per counselor
- Seniors who had been in the same school for three or four years reported a median of four individual counseling conferences for all years. The median length of individual conferences was sixteen minutes.
- In most schools no one assumed the primary responsibility for assisting students to decide on and enter into vocational programs

- Seventy-six percent of the students, 81 percent of the parents, 95 percent of principals, and 90 percent of the teachers in the sample ranked 'aid in choosing an occupation' first as the guidance service which should be provided.

- Learning about the world of work and about study habits counseling were least frequently checked as available and most frequently checked as needed by students.

- Although 81 percent of the students indicated that they had an opportunity to read publications about occupations, 35 percent of them checked that the kind of job information they wanted and needed was not readily available in their school. Sixty-three percent of the rural comprehensive and 59 percent of the rural general academic students indicated that they had not had the opportunity to read occupational information, compared to 19 percent for the four other types of school--urban or area vocational technical schools (Campbell, 1968).

While the Campbell data is now more than a decade old, the general validity of the findings reported there tend to be confirmed by other and, in some cases, more recent findings. Kauffman and his colleagues (1967) have undertaken two major studies of vocational education for the U.S. Office of Education. Among their findings were that over half the vocational students, but less than one-third of those who followed an academic or general program, reported that they had never discussed their course choices with a counselor; of those who reported that they had had some formal guidance, three-quarters had a favorable estimate but vocational students were less likely to report favorably; over two-thirds of the girls and more then three-fourths of the boys who were planning to work after high school reported that they had never discussed their occupational plans with a guidance counselor.

In 1973, Prediger, Roth, and Noeth published a nationwide study of student career development involving 28,298 students in the eighth, ninth, and eleventh grades in 197 schools. Among their findings were:

- More than three-fourths of the eleventh graders in the sample would like help with career planning. The proportion of eighth graders desiring such help is almost as high.

- Making career plans is by far the major area of need indicated by eleventh graders from a list of needs including improving study, reading or math skills, choosing courses, discussing personal concerns, or obtaining money to continue education after high school.

- Only 15 percent of the eleventh graders felt that they had received 'a lot of help' with career planning from their school. Another 37 percent felt that they have received 'some help'. However, half of the eleventh graders and slightly more eighth graders state that they have received little or no help with career planning.

- Over half of the eleventh grade girls chose occupations falling in only three of the 25 job families used to assess their preferences. The three were clerical and secretarial work, education and social services, nursing and human care. Seven percent of the boys prefer such occupations. Nearly half of the boys' choices fall in the technologies and trades cluster of job families in contrast to only seven percent of the girls' choices. Thus, we have a fairly dramatic example of the persuasive influence of work role stereotype related to sex which unnecessarily restricts the career options considered by both males and females.

- With respect to job preparation, approximately 40 percent of the eleventh graders are uncertain as to whether their educational plans are in line with the occupations they are considering and approximately one-fourth are not sure if they will be able to complete the steps necessary for entering these occupations (Prediger, Roth, & Noeth, 1975, p. 12-14).

There are other examples of descriptive, experimental, and quasi-experimental studies which bear upon the use of occupational information. Major examples follow. Banducci (1970) has reported that academic development was related to the accuracy of stereotype perceptions of occupations. Krasnow (1968) also found that knowledge of general occupational information was significantly related to academic development. Nuckols and Banducci (1974) found, in a sample of 648 senior boys, that regardless of their academic achievement, social status, and formulation or nonformulation of future plans they had a greater knowledge of low level occupations than of high level occupations.

Thal-Larsen and Nagawala (1971) reported on a survey of high school students sponsored by the Department of Labor. The majority of students surveyed indicated that they wanted to know more about their chosen field. Thomas (1973) surveyed the career needs of 2,100 New Jersey students and found that career information was a high priority. In a survey of educational information needs among high school students, Kinnick (1975) concluded that student information needs far exceeded available information.

Prediger, Roth, and Noeth (1975) in the study previously cited found that less than 50 percent of eleventh graders and approximately 40 percent of eighth graders answer correctly one-half to three-fourths of the questions related to occupational knowledge. In 1969, a survey of the career information of several hundred thousand 15-to 18-year olds enrolled in high schools in 1969 indicated that students scoring low on an occupational information test outnumbered high scorers almost seven to one (Manpower Administration, DOL, 1969).

In 1973, Parnes and Kohen found in a national study of high school dropouts that these persons experienced a large lack of information about salary and educational requirements for occupations. Kohen and Breenich (1975) developed a test to analyze the amount of occupational information known, and administered it to 5,000 men, aged 14 to 24. They found that most subjects only had adequate knowledge of salary information and that white males knew more about occupations than black males.

Laner (1971) surveyed high school students' needs for labor market information in career decisionmaking and found that two-thirds of the students reached decisions about their careers with the absence of appropriate information about jobs and careers. In 1975, Kreuger surveyed the knowledge of outlook projections for seven occupational clusters with high school students in Nevada. In a ranking of clusters according to demand for workers, he found that students' knowledge was not significantly different from chance.

Flanagan, Tiedeman, Willis, and McLaughlin (1973) reported the results of a five-year longitudinal study on the career development of 108,000 youth. Statistically significant relationships were found between an occupational information test score and average hourly earnings as well as occupational status.

The many studies of Super and his colleagues in the 20 year-long Career Pattern Study have indicated that there is a significant predictive relationship between vocational maturity of students in the ninth and twelfth grades and subsequent occupational success and vocational development in young adulthood. Vocational maturity in these contexts include the possession of occupational information bearing upon the choices to be made, planning, and interest maturity (Super, 1969).

In analyzing the data available in the National Longitudinal Study with respect to the school to work transition for various youth populations, Stevenson (1978, p. 109) has reported that labor market information is directly related to earnings. He also reports that labor market knowledge is highly correlated with background and is influenced by family background. Using the same data in respect to a reassessment of youth unemployment Adams and Mangum (1978, p. 138) have stated:

> Along with jobs, education and training, there is a need for better bridges between school and work. The substitution of better counseling and job orientation in career education is potentially an important alternative to youth turnover and unemployment and the 'musical chairs' approach to career development. The results of this study, using a measure of labor market knowledge, support this conclusion. Not only do youths need career education to develop realistic expectations concerning the world of work, but also to develop knowledge of how labor markets work, of alternative career paths, and of the steps necessary to move along a given path. No one is born knowing how to search for a job; it is a skill that needs to be taught like most other skills.

Brito and Jusenius (1978) examined the National Longitudinal Study data on the labor market experience of young women in order to probe such matters as the occupational segregation of women, occupational preferences of women vis-á-vis typical and atypical occupations, occupational preferences and occupational outlook. They concluded that:

> While it is evident that a substantial proportion of all women plan to have extensive ties with the labor market, the research reported. . . indicates that there still are extensive labor market information lags that impeded appropriate career decisions. In general, when queried about their occupational plans for age 35, women tended to mention only a limited number of occupations, most of which are jobs that have been traditionally held by women. Thus, it appears that the 'women's liberation' movement has not yet made significant inroads into the career thinking of young women. Moreover, some of these traditionally female occupations represent economically irrational choices under existing circumstances (Brito & Jusenius, 1978, p. 26-27).

As a function of mail and telephone surveys conducted with various cohorts of young men between the ages of 14 and 24 during intervals between 1966 and 1976, Kohen, Grasso, Myers, and Shields (1977) have reported on a longitudinal study of the educational and labor market experiences of young men. They conclude that their studies provide empirical support:

> . . .for the widely accepted belief that the extent of a youth's information about the world of work is positively linked to measures of his success in the labor market (see also Parnes & Kohen, 1975). Both the earnings and the prestige of a youth's first postschool job are seen to be positively and significantly related to the extent of his occupational information as measured prior to leaving school. . . . Likewise, a young man's stock of informaton has been shown to exert a positive influence on the likelihood and magnitude of his occupational advancement. Previous research on this measure of occupational information has already made clear 'that most youth are far from having the kind of knowledge that would permit them to make occupational choices in the manner suggested by the utility-maximizing model of conventional economic theory' (Parnes, 1976, p. 37). Hence, public policy efforts to generate and disseminate more labor market (occupational) information to all youth should continue, and should be directed more broadly toward those youth in the lower socioeconomic strata, who are relatively disadvantaged in this respect (Kohen, Grasso, Myers, & Shields, 1977, p. 192-193).

Since 1964, the National Assessment of Educational Progress (NAEP) has surveyed in five-year cycles the educational attainments of four age groups: nine, 13-, 17-year olds, and adults. One of the ten areas assessed is career and occupational development. The most recent NAEP Career and Occupational Development Assessment occurred during the 1973-74 school year was reported in 1978. The findings most pertinent to requirements for occupational information include the following:

Mitchell (1978), in reporting on 17-year olds, has reported that the survey data indicate that students are not sufficiently aware of sources of job information and/or how to access these sources. According to Mitchell (1978, p. 18), "Despite the sophisticated technological approaches to delivering information to students (computer, audiotapes, videotapes, cassettes, etc.) now available, these apparently have not yet made a major impact on students' information-seeking patterns." The NAEP data for the 17-year olds reported by Mitchell (1978, p. 18, p. 54) indicated that the principal resource named for finding out the requirements of a job is observation of the job field. Reading about it and contacting a personnel office were also frequent responses. Black youth tended to indicate that they used these approaches somewhat more than did white youth. The data do not indicate the extent to which these students were actually exposed to computer-assisted methods as compared to the other possibilities cited. The data available

also indicate that sex stereotypes appear to be so ingrained in the aspirations of the 17-year olds that reversing these conditions seems to be an overwhelming task. Females see themselves as clerical workers, in service occupations, and as homemakers and housewives. Males see themselves as craftsmen, farmers, and farm managers, laborers, managers or administrators, military, operatives, proprietors or owners, and in protective services.

One of the most significant findings reported by Mitchell is that only 2.2 percent of the 17-year old respondents saw school or academic areas as activities that might be useful for a job. In a part of the survey in which the respondents were to match occupations with required physical characteristics or learned skills, only 10 percent had all nine parts correct with blacks and poor inner city students lower than other populations on this item. Other findings suggested that many 17-year old students did not possess adequate employment seeking skills, did not know how to correctly prepare a letter of application or lacked understanding of work rules and that these deficits varied among racial and sex groups.

Aubrey (1978), in the same series of monographs, reported on the career development needs of 13-year olds. Among his findings were:

- When asked to list ten things to be considered in choosing a job or career most thirteens can list two things and less than half of the thirteens can list more then five (p. 19)

- Males and females are practically equal in their ability to list their strengths. More whites than blacks are able to list both strengths and limitations (p. 11)

- A higher percentage of males, blacks, and students whose parents did not graduate from high school as compared with females in general are able to list activities useful in obtaining a job (p. 17)

- The first choice of thirteens for future jobs tend to be occupations generally requiring college degrees or lengthy training periods beyond high school. Few thirteens see themselves in future jobs now held by the bulk of the work force. (p. 19)

As might be expected, Miller (1978), in assessing the career development of 9-year olds, seems to have found somewhat less specificity in knowledge of self-characteristics or of different occupations than is true of 13-and 17-year olds and there are racial and sex linked differences in some types of knowledge.

In a collective sense, the studies reviewed here affirm the need for occupational information in providing career guidance and counseling to students from the elementary through the senior high school. There appears to be no doubt that students who do not have access to or who do not possess occupational information pertinent to their goals are disadvantaged in career planning, choice, preparation and subsequent occupational success. It is also clear that the possession of occupational information varies among males and females, white and minorities, and on geographic grounds.

In the main, the research studies reported here treat occupational information in general terms. They do not specify which category of occupational information--demand, supply, etc.--is of more importance than another. The inference one can draw from such a perspective is that each category of occupational information--demand, supply, characteristics, complementary, supply/demand analysis--is likely to be important for some subset of students, but not for all.

In the absence of specific research findings about the differential importance of types of occupational information, the remainder of chapter 3 will examine each type of occupational information expected to be incorporated into the NOICC/SOICC system and suggest its utility and its function.

I. Occupational Demand

Specific data elements (e.g., number of job openings, projected occupational demand, expansion or reduction in occupational demand, replacement, demand, employment by industry) are potentially important in assisting students to examine the forecasts on which occupations are likely to grow or decline in person power requirements and the likelihood of rewards and opportunities for advancement being associated with the decline or growth of these occupations. Such data provide potential reality-testing for those students who aspire to occupations incongruent with their interests, abilities, and general motivations. Such information also assists students to understand the magnitude of workers employed in a particular occupation, the replacement cycle, the length of time in which persons are likely to be engaged in particular occupations and the flow of persons into and out of occupations. Of particular importance is demand data which shows shifts in occupations by industry. Such information permits students to realize that while occupational demands may be decreasing in one industry, such circum-

stances do not necessarily prevail across other industries. Such understanding plus replacement cycle information can reassure students that even in occupations which may be decreasing in aggregate terms, there are still openings if one is deliberate in the search process. Demand data would have enhanced usefulness to students if it included estimates of workers who are self-employed, the types of self-employment present and the relationship of categories of self-employment to occupational or industrial experiences and skills.

Occupational Detail

Demand data needs to be provided in clusters of occupations, specific occupations, as well as in terms of specific jobs. Each of these levels of demand constitute data for students in different phases of planning. Students in initial exploration need to be able to think in clusters of occupations which may relate in gross terms to their preferences. Such demand information is also useful for students at later stages of planning who are considering issues of elasticity of occupational skills or demand. Students faced with choice of vocational training or with immediate entry to the labor force are concerned not only with occupational clusters but more specifically with demands in selected occupations within such clusters to which curricula are directly related. Finally, students on the threshold of entrance to the labor force are concerned with the availability of specific job vacancies related to the occupational or cluster preferences they have earlier explored or because they must compromise with the realities of actual job availability for economic or other reasons.

Geographic detail provides a screen by which students can test their geographic mobility against their occupational preferences. Such information can help students consider the concentration or the dispersion of occupations across industries and, indeed, the concentration or dispersion of industries with respect to their location in particular locales. Such information can cause students to weigh the importance to them of remaining close to the place where they were reared and to their nuclear family as contrasted with the need to move to where a particular occupation is most likely to be available. Such geographic detail can also assist students to consider the influence of geographic mobility as a factor in the advancement of persons in those occupations or industries with wide geographic dispersion. Such

information can also be useful to students in helping them understand the interaction of the presence of transportation systems, natural resources and raw materials, a trained labor force, tax laws, etc., as they affect occupational or industrial concentration, movement, or dispersion.

Format. Occupational demand information needs to be placed in multiple forms if it is to meet the needs of diverse student populations. Therefore, graphic, audio-visual, printed, tabular, bi-lingual formats each have important implications for the way the information will be received by students.

Frequency and Periodicy. The time interval for occupational demand data obviously is a function of whether it is dealing with actualities or potentialities. Information on job vacancies in a local situation should be as current to the flow of such job orders as is technologically possible. Thus, such information should be available on a daily and weekly basis. Information which is primarily intended to forecast potential demand, rather than the actualities of current job vacancies, would need to be projecting five- and ten-year trends on substate, state, and national bases and reported annually or biennially.

Projected Time Frames. Again, the issue is whether one is talking about demand in terms of actual job orders by employers or projections of potential occupational demand by industry and geographic area. The latter forecast should be extended as far as it is possible for the levels of such forecasting technology to be reasonably reliable.

Occupational demand information can be used in individual counseling, group guidance, and indeed, any other of the career guidance and counseling functions described in chapter 2.

II. Occupational Supply

In a general sense, information about occupational supply has not been as important to client (student) services as it has been to planning in vocational education or manpower training. Therefore, career guidance and counseling have not been as unlikely to be concerned about occupational supply as occupational demand, except in such instances as the following: There may be some occasions when selected students might use comparisons of occupational supply to occupational demand as a basis for assessing personal "odds" of their securing entry into a particular occupation. Or, it is possible that some students may consider comparisons of supply in different

geographic locations as ways of determining the relative merits of remaining or leaving a particular location with respect to odds of entry. It is also conceivable, but unlikely, that supply data about occupational transfers at a lateral level could help students understand the notion of skill elasticity and the implications of this phenomenon in relation to their occupational preferences.

The relative lack of use of occupational supply data by counselors and students may be a residual aspect of the pervasive role Keynesian economic notions have played in American thinking about both fiscal and manpower policies. To wit, the major element to be manipulated or understood is demand, supply will follow. While such Keynesian notions are now being challenged and under conditions of economic stringency growing limits on occupational demand can be expected, the fact is that information about occupational supply is far less available to counselors and students than is information about occupational characteristics or demand. Translating supply information into the probability paradigms used by counselors and students in career decisionmaking should be a major goal of both OIS and CIDS.

III. Occupational Characteristics

Specific information on occupational characteristics is extremely valuable if not fundamental in current models of career guidance and counseling.

Specific data elements. Information on job duties, work hours, work environment, earnings and benefits, and career lines each have important implications for assisting students to differentiate work performance from work context or from the normative aspects of industrial discipline. Students vary in the degree to which their work values propel them to key in on work content and technical competency or the sociopsychological aspects of work (interpersonal relations, values and interests which can be gratified, security, discretionary versus prescriptive use of time, etc.) as the major motivators of choice. Certainly a matrix of occupational data elements such as that described in the Occupational Outlook Quarterly (Dillion, 1975) represents the kinds of data elements useful to students. These would include: earnings and benefits, job duties, work settings and conditions, ability and aptitude requirements, education/training requirements, demograph-

ics of workers by occupation, career leaders, hiring channels, major employers, etc.

Occupational detail. It is difficult to argue that the specific data elements described above should not be available for all occupations. While this may be difficult to achieve given the current availability of such information, to do less is to restrict student freedom of choice. Several of the research studies cited at the beginning of this chapter affirm that students choose the most visible occupations and not the least visible. That is an understandable phenomenon. One does not choose what one does not know about. Nor does one choose occupations about which one has rigid stereotypes which suggest that women or blacks or some other set of traits will be unwelcome or unsuccessful. Thus, specific data elements cast across the widest range of occupations possible is consistent with the intent of career guidance and counseling.

Occupational detail data provide information which assists students to consider the specifics of work actually required in different occupations and the connections between it and patterns of education and training or the need for knowledge and skills in specific subject matter. The specifics of work activity permits students to consider the likelihood of their ability to perform the work required, to develop the technical competence necessary. Such occupational detail is also able to help students consider the elements of the context in which the work activity is carried on. Such information permits students to consider not only whether they can do the work required but whether they can deal effectively with the work environment or whether they resemble in values and interests the persons with whom they will likely work. Thus, there is the potential here to assist students to figuratively project themselves into both the work performance and work context aspects of career planning. Also useful here are statements of special career planning conditions which local job characteristics require (e.g., license, particular types of training or education, union membership). When combined with knowledge about major employers and hiring channels, such data also enhance reality testing as well as increasing the specificity with which planning can occur.

Geographic detail. Here again issues of geographic dispersion versus geographic concentration by occupation is important to career guidance and

counseling. For the same reasons cited in Category I, Occupational Demand, geographical detail is extremely important in the career planning of many students.

IV. Complementary Information

Information which is complementary to or which mediates occupational information is extremely important to students. The focus of much of this information should be on education or training opportunities as these are related to occupational entry and adjustment. Among the types of information likely to be most useful are:

- Apprenticeship in the local community or substate area, the trades in which these are offered, and procedures for applying,
- Types of employer training available in the local community or substate region and under what conditions,
- Federal manpower training opportunities (e.g., CETA and the various youth entitlements, Job Corps, public service career programs, etc.) and the criteria for entry,
- Relationships between academic subject matter and employment opportunities,
- Agencies available to assist with labor market access,
- Postsecondary schools in the local area or region offering particular types of approved training,
- Services available for the unemployed, and
- Sources of financial aid for various types of training, criteria for obtaining aid and the details of application processes.

Complementary information such as information on occupational demand or occupational characteristics can be delivered through individual counseling, group guidance, curriculum-based infusion or other means. None of the types of occupational information described here is delivered by only one career guidance and counseling function.

V. Supply/Demand Analysis

Under most current assumptions of career guidance and counseling, supply/demand analysis would be more useful to manpower planners and vocational educators than to counselors. However, there are some exceptions. Data on comparisons between occupational supply and demand would be of some

use to some students as they are assessing the odds of their ability to enter a particular occupation. This would be particularly true in the case of occupations in which extremely small numbers of workers are employed and where few replacement opportunities exist. In general, however, in occupations where large numbers of workers are employed, and where replacements through death, retirement or mobility are frequent, counselors would likely feel that supply/demand comparisons are not sufficiently fined-tuned to warrant student consideration of such data if the student has the ability, interest and motivation to aspire to such a role. As supply/demand analyses of occupational opportunities for projected time periods become more comprehensive, more reliable, and more accessible such data may become standard input to student decisionmaking. That is not the situation now.

Chapter 4. AVAILABILITY/UTILIZATION OF OCCUPATIONAL INFORMATION IN PLANNING, ADMINISTRATION OR CLIENT SERVICES[1]

The availability of occupational information for career guidance and counseling use in client (student) services is a reasonably complex issue. Before turning to the availability of specific categories of information, it is useful to deal with availability in the sense of access and availability in terms of information focused upon the needs of school-based programs, like that of career guidance and counseling.

Taking the issue of the availability of occupational information geared to the needs of school-based programs first, one immediately finds a problem. Despite the overall excellence of the occupational information provided by the U.S. Department of Labor or its state counterparts, there still remains a lack of interface between the content and purposes of such information and the career guidance and counseling needs of students.

In order to examine the availability of occupational information most effectively, it is useful to divide it into two broad categories. For the purposes here, I will call one career information and the other labor market information. While other names are sometimes used by the DOL and other groups for such emphases, these descriptors will be adequate for this discussion.

Career information will be used here to describe that information which deals with the total world of work wherever it occurs, the full range of preparation for it, broad perspectives on the spectrum of working conditions, work incentives, work settings, ways of accessing the world of work, self-assessment in relation to the occupational possibility structure and other factors which lay a base for planning which goes beyond immediate job choice.

In contrast, labor market information can be viewed as descriptive of the types of work actually available in the industries and businesses that exist in a specific geographic area at a particular point in time (Mihalka,

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[1]Some of the information in this section is adapted from Edwin L. Herr. "Recommendations for the use of Labor Market Information." A paper presented to a Department of Labor Symposium on Labor Market Information, Anaheim, California, December 2, 1979.

1974). Since labor market information deals with actual job vacancies and employer requests for workers, it is more dynamic in its potential for short-term change than is career information. In short, career information talks about the occupational structure in terms of possibilities; labor market information talks in terms of actualities.

Both career and labor market information are extremely valuable in career guidance and counseling with youth and with younger children. It is possible to argue that the primary value of each kind of information depends upon the type of postsecondary reality individual students intend to engage; whether they intend to leave the secondary school to go directly to work, some combination of work and education, or education exclusively. Even so, it can be argued that regardless of the specifics of the postsecondary alternative students plan to enter, career information is valuable for all youth. It can also be argued that the balance of career/labor market information important in career guidance and counseling shifts in the elementary school, junior high school, and senior high school from almost exclusive attention to career information to an increasing balance of career and labor market information.

Within this context, at least at this point in history, the governmentally-developed occupational information available to schools is primarily oriented to national or state trends in career outlook rather than to local trends. This is true even though regional labor market surveys or local job bank information is available to translate national and state trends into substate outlook or actual job availability cast in local terms. This is true even though there are reams of statistics in many state level publications which have labor market implications for local communities; in general, they are not translated into a format which school personnel or students can use. This is true in spite of the important use for many persons of such quality information as "Occupations in Demand at Job Service Offices"; other persons simply do not have the type of geographic mobility implicit in such a format.[1]

With regard to type of career or labor market information available to schools, one finds much the same situation in the commercial market as in the governmental sector. Most commercially produced information is couched in national generalizations and, indeed, often recasts the information

produced by the government in fancier packages or convert printed information into other types of technology--games, occupational briefs, nonfiction stories, filmstrips, etc. At a commercial level, it is obviously more profitable to provide material which has generalized relevance to the largest audience and that is, of course, the national, not the local.

While information on national trends can be an exciting stimulus to broad exploratory behavior and to guided fantasy, most secondary school students ultimately plan and compromise with or translate their preferences into the reality of local or regional job availability. This situation has been articulated by a number of observers in somewhat different ways. Examples include:

> Popular impressions to the contrary, most high school graduates and dropouts get their first job close to home (Hoppock, 1976, p. 203).
>
> Data about jobs on a state, regional, or national basis are valuable, but pertinent data about local employment opportunities are essential to give students a more complete picture of the occupational scene in their community (Norris, Hatch, Engelkes, and Winborn, 1979, p. 277).
>
> By contrast to the abundance of well-prepared, up-to-date, national-level information, local information is scattered, fragmentary, and often difficult and time-consuming to obtain (Tolbert, 1974, p. 136).

In a sense, the foregoing suggests that various types of career and labor market information do exist either through governmental or commercial publications. Beyond existing, however, the question is does it accord with the career planning and choice needs of most students served by career guidance and counseling? While not easy to answer in a simple way, it seem apparent that much career information and local labor market information has been developed for distributional purposes: to match a job seeker with available opportunities which require his or her experience and skills at a

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[1]It should be noted that one role of the CID's now emerging in an increasing number of states is to package both career and labor market information as I have described them and to target this information in ways specific to either assist in or to make career decisions. Thus, the observations made here differ on the degree to which they are applicable in individual states.

point of immediate choice. The distributional nature of such information has, in the main, worked very well. It has supported quite directly the primary function of the interviewers and counselors of the U.S. Employment Service: to place applicants in jobs (Helwig, 1979).

Career guidance and counseling in schools also has a distributional role, either alone or in combination with other agencies (e.g., the local Bureau of Employment Service Office) in helping some students find and enter a job immediately upon leaving school. However, there are other career guidance and counseling purposes for which occupational information is necessary. Three decades ago, Christensen (1949) identified such purposes, in addition to distributional, as instructional, instrumental, and therapeutic. Other authors (e.g., Hoppock, 1976; Norris et al., 1979) have offered other variations on such themes.

The point is that occupational information which is prepared primarily for distributional purposes, however excellent it is, does not necessarily meet the needs of school programs which have other or additional purposes into which such information must fit. Whether the rubric is career education, systematic career guidance and counseling, career planning, or vocational guidance, school-based purposes for occupational information require that students gain a broad understanding of the occupational structure, job families, points of access to the labor market, and related material as a type of instructional content by which they can connect educational experience with opportunities in the labor market or by which they can locate themselves in an adult role which has some continuity with where they are now. In large measure, schools do not view placement or distribution as an event, but rather as a process of acquiring information and experience through which one can forge career plans which include immediate, intermediate, and distant goals. Such instructional processes begin in the elementary schools and extend through the junior high/middle schools and into the senior high schools. Thus, it is necessary that career and local market information be able to respond to the different levels of conceptualization, backgrounds of experience, and goals and readiness found among these groups.

Instructional purposes require that students be helped to know personal strengths, weaknesses, values, preferences and the ways they might be met in the occupational structure. Such a purpose also requires that a student be

able to consider the available routes pertinent to his or her goals, the constraints upon them, as well as the trade-offs and mini-decisions required to prepare oneself as effectively as possible for the available alternatives. To the degree that career or labor market information can stimulate a student to further exploratory and planning activity it meets not only instructional but also instrumental goals in providing a motivational set as well as a knowledge base for purposeful activity.

The school counselor or other specialist involved in career guidance and counseling frequently needs to help students scale down or change ambitions which seem inconsistent with their demonstrated ability or with the resources available to them without undue embarassment or other complications. It may be that such students need to secure information about the occupation they prefer or compare its educational requirements with their academic grades or scholastic aptitude. Perhaps such students' choices are motivated by emotion, glamor, or romance rather than by knowledge of themselves or of occupational alternatives available. Perhaps the counselor will need to help the student locate alternative occupations or specific jobs which are available and which might better meet both the ambitions and the abilities of the student. Such a counseling experience might also help the student realize that both educational and occupational information have meaning only insofar as such data evaluated within the framework of what individuals know about themselves. To the degree that career or labor market information would serve such purposes it would have a therapeutic function.

Within the terms described above, it is possible to suggest that there are likely to be voids in career and labor market information available for students below the secondary school level, for students of different racial or ethnic backgrounds, and for students who wish to do career planning which goes beyond immediate and imminent choice within local geographic parameters. The specifics of such informational needs will be talked about more fully in the analysis of categories of available information in the next section.

There is a final dimension of the availability of occupational information which needs brief consideration here. That is the degree to which career guidance and counseling practitioners in schools know about the availability of occupational information. If such persons do not know how to obtain access to available information or what is available, for all practical purposes it does not exist.

Career/occupational information provided by commercial firms is likely to be well known to most career guidance and counseling personnel. This is true because of the elaborate advertising and marketing networks which exist. Mailed brochures and catalogs of such information are commonplace. Frequently these are supplemented by personal visits by salespersons or by displays of materials and resources at professional meetings.

Information available from governmental sources are likely to be less well known to career guidance and counseling personnel. Major items such as the Dictionary of Occupational Titles and the Occupational Outlook Handbook are likely to be included in the content of counselor education programs and discussed in the professional literature or at professional meetings. However, this is much less true of local or substate occupational information. According to Federal legislation such as the Vocational Education Act Amendments of 1968 and other Federal agreements between DOL and HEW, employment counselors are expected to share labor market information with school counselors and other educational personnel and the latter are to share the training experiences and skills of students to be placed in the labor market. That expectation does not seem to be working across the nation. Local employment counselors and school counselors do not seem to routinely share labor market information. Nor are school counselors routinely taught what services are provided to various target groups of economically disadvantaged or handicapped in-school and out of school youth through the Employment Service or in its responsibility to CETA, YEDPA, etc. This is not to say that employment service counselors do not work with school people in administering the GATB to the hard to place members of the senior class of those not going on to college and then trying to place them. It is to say that cooperation does not typically extend to the systematic provision of labor market information, help in using it and providing it at a local level which is most consistent with the types of career planning and support mechanisms which are present in secondary or local schools. Therefore, it is likely that in the absence of other mechanisms to make school personnel, school counselors in particular, aware of local or regional occupational information which can be secured from state or Federal sources, it is essentially non-available to the various populations which career guidance and counseling serves.

With such perspectives as preamble, the next sections will deal with availability of particular types of occupational information.

I. Occupational Demand

The requirements within career guidance and counseling for occupational demand data and various subsets were discussed in chapter 3; such perspectives will not be repeated here. However, as suggested previously, occupational demand at the national level is available and of high quality for the most part. Such information tends to speak to occupations independently of industries in which they occur or the general elasticity by which occupational demand can be portrayed. However, aside from regional labor market surveys which may in some cases represent major metropolitan labor markets on information about immediate job openings, local occupational demand data; while available in many states, is not as visible in career guidance and counseling programs as its utility would seem to warrant.

II. Occupational Supply

As indicated in chapter 3, data about occupational supply is not routinely used in career guidance and counseling. Such data is more likely to be used by planners in vocational education and manpower training. Such information is available, but its comprehensiveness and accuracy seems uneven across the nation.

III. Occupational Characteristics

As suggested in Category I, Occuapational Demand, there is a large amount of information available about occupational characteristics in generalized or summarized form which reflect national perspectives. By and large, this information does not speak to the idiosyncratic characteristics of the occupation being implemented in a particular industry nor does it speak to the characteristics of occupations in local or substate terms.

To increase the relevance of information about occupational characteristics to local career guidance and counseling efforts, several emphases not now in place would be desirable. For example, it would be extremely useful to build into such information local occupational prediction or "experience" data. Which students get which jobs? What curriculum were they in, what were their grades, did they have previous part-time work, what was their starting income, how long did they remain in their initial position? Such local probability data has been shown to be quite influential in

student choice-making in the few instances where it has been gathered and systematically retrieved (Yabroff, 1969).

Information about occupational characteristics could also describe where workers come from and where they go in relation to specific occupations both in terms of the elasticity of skills and the broader notion of occupational mobility. In this context, students doing career planning need to be helped to see occupational mobility as a number of streams or routes to and from occupations. Some occupations tend to be where most people who enter them stop. Some occupations are only way stations on the road to another point in one's career.

Fundamental to current models of career education, cluster concepts of vocational education, and paradigms of personal decisionmaking is the need for a base of information by which students or adults can plan immediate, intermediate, and distant goals. Such planning in any particular case may need to take into account any of the following types of questions:

1. What are the multiple ways by which persons enter particular occupations?
2. What lines of transfer exist among occupations?
3. Which occupations feed other occupations?
4. What is the likelihood of persons remaining in the same occupation for a five-year period?

Such data do not exist in local terms and, indeed, not in national terms either.

Beyond the occupational prediction or "experiencing" information or that of occupational mobility, other information about occupational characteristics which is not available in local or substate terms would include:

- Estimates of workers who are self-employed. The types of self-employment present and the skills training or experience of self-employed people.
- Special conditions which local job opportunities require (e.g., license, particular types of training or education, union membership); Employers who have adapted job settings for handicapped workers.
- The local occupation, industry, or company which has employed the largest number of dropouts and graduates from the local school districts.

- The local occupations, industries, or companies identified by numbers employed and types of workers.

- Which occupations account for most of the Employment Service placements? What other kinds of job orders are routinely handled? Where are beginning workers most in demand today?

- How do occupations differ in their requirements for industrial discipline (e.g., availability of flextime) or other sociopsychological characteristics?

IV. Complementary Information

Just as in matters of occupational demand and occupational characteristics there are various forms of complementary information available. Much of it is national in scope and generalization. Therefore, the need for complementary information which is localized or regionalized is important in the support of career guidance and counseling. For example, many students and adults engaged in career planning tend to believe that there is only one route to their occupational goals. If they do not like the route they know about, they simply reject that occupation and look elsewhere. While such a phenomenon has important implications for data exploring patterns of occupational mobility as described in Category III, it also has important implications for information about training alternatives, etc. Examples of complementary information which are not systematically available in many, if not most, communities include:

- Apprenticeships in the local community, the trades in which these are offered, and procedures for applying,

- Types of employer training available in the local community and under what conditions,

- Federal manpower training opportunities (e.g., CETA and the various youth entitlements, Job Corps, public service careers programs, etc.)

- Relationships between academic subject matter and employment opportunities,

- Postsecondary schools in the local area offering particular types of approved training,

- What services are available for the unemployed.

V. Supply/Demand Analysis

As indicated in chapter 3, this combination of information is more likely to be used by planners in vocational education and manpower training than by career guidance and counseling personnel in direct client (student) service.

Chapter 5. RECOMMENDED ROLE OF OIS IN MEETING, PLANNING OR OPERATIONAL INFORMATION NEEDS

I. Introduction

With respect to the needs for occupational information in career guidance and counseling, the following recommendations are directed to the general role of the OIS in relation to career guidance and counseling and, where applicable, more specifically to the subfunctions of CID's.

1. The OIS in each state needs to maintain an advisory body of persons including career guidance and counseling practitioners from school settings as well as specialists from the State Education Agency. Such persons need to assist in the definition of educational needs for occupational information, data which needs to be available, and delivery strategies likely to make occupational information most accessible to school personnel.

2. The OIS should serve to bridge the state counterparts of Labor and Education in coordinating resources and personnel in both sectors who have needs for, competency in generating or analyzing, or responsibilities for using occupational information. This coordination should extend to the identification and evaluation of existing occupational information resources.

3. The OIS should serve to stimulate the provision of or provide inservice training for career guidance and counseling personnel with regard to the role, content and access mechanisms pertinent to occupational information. Such inservice training should include that needed by counselor educators in their planning and implementation of inservice and preservice training programs for career guidance personnel.

4. The OIS should develop relationships with professional organizations which are concerned about the development and delivery of occupational information. Such organizations should be helped to regularly inform their membership of OIS content, format, availability, etc.

5. The OIS should cooperate with university and other research centers in undertaking studies of appropriate content and delivery of occupational information for diverse subpopulations.

6. The OIS should work with State Education personnel in establishing certification standards for career guidance and counseling personnel which include the ability to use career and labor market information.

7. The OIS should provide short-term opportunities (e.g., summer vacations) for selected school counselors and directors of guidance to work with OIS personnel in collecting and analyzing information to be included in the OIS.

8. The OIS should consider providing as many delivery modes as possible to insure that career guidance and counseling programs with different levels of funding or expertise can find ways to use the informational content available. Although the computer-based system may be the primary mode of delivering occupational information, the OIS should consider other mechanisms by which the software content can be made accessible to interested agencies.

II. Shortrun and Longrun Suggestions

Since some of the following recommendations now occur in prototype form in some parts of the nation and in others no initiatives have yet been taken, it is difficult to separate short from longrun suggestions for either repackaging or generation of new information. Therefore this section will consider a series of recommendations which combines both timeframes.

A. Occupational Demands

1. Repackaging of existing information

   a. Existing occupational information with a primarily distributional emphasis should be re-oriented to the language systems needed by students at different educational levels. In addition, the content of such information should be extended to meet the student planning needs described in chapter 4, not just matching needs.

2. Generation of New Information

   a. Career planning information which includes local, not just regional and national forecasts, needs to be developed. Rather than focusing only on current job vacancies, such information needs to identify flow into and out of occupations, who gets jobs, the relationships between subject matter and occupational activity, information about the largest employers in the community, and their projected occupational demands in entry level and replacement terms.

   b. Identify potential sources of localized occupational information from groups in the private sector, research and develop-

ment organizations, economic and manpower planning agencies, apprenticeships councils and other sources which have not typically provided such instruction for public use.

B. Occupational Supply

No Recommendations

C. Occupational Characteristics

1. Repackaging

a. As in Category I, Occupational Demand, existing information should be cast at the language level and in response to questions which students in the elementary, middle/ junior high school, senior high school would find pertinent. This would involve creating "junior" versions of such works as the Occupational Outlook Handbook and other such major references to occupational information. The 1979 edition of Exploring Careers developed by the Bureau of Labor Statistics is an excellent step in this direction.

2. Generation of New Information

a. For major local occupations, either cast in terms of specific industries or separate from them, create locally-based occupational prediction or "experience" tables. These tables should be designed to link prevocational personal characteristics to acquisition of jobs. Questions related to achievement levels in school, prior part-time work, subject matter or curricula taken might be related to occupation entered, persistence, starting income.

b. For major local occupations, develop flow charts which suggest where workers come from and where they go using both occupational and training alternatives as input variables. Such data should assist in the portrayal of patterns of potential immediate, intermediate, and distant goals.

c. Differentiate characteristics of occupations which occur in industries and in self-employment. Discuss magnitude of characteristics of and preparation for self-employment.

d. Develop profiles of occupation-industry interactions which identify not only differences in work activity but differences

in work context, socio-psychological aspects of work, and industrial discipline as well.

D. Complementary Information

1. Repackaging

a. Stress to the degree appropriate with particular occupations, the multiple education and training routes to that occupation. Rather than providing information on separate forms of education and training, information is needed about the similarity and the differences in occupational outcome to which separate postsecondary training alternatives might lead.

2. Generation of New Information

a. Identify by major occupations the types of subject matter required in the problem-solving in which that occupation is engaged.

E. Demand/Supply Analyses

No Recommendations

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